

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 2, line 17, with the following amended paragraph:

These and other needs are addressed by the various embodiments and configurations of the present invention. The processes and articles of the present invention use a variety of thermally stable and loft retentive polymers in sublimation printed flock fibers, which are highly attractive for molded resin articles. In a particularly preferred embodiment, the flock fibers comprise poly(cyclohexylene-dimethylene terephthalate) ("PCT"), which includes modified forms of PCT such as Thermx PCTA™ manufactured by Eastman Chemical Company. As will be appreciated, Thermx PCTA™ is PCT modified using isophthalic acid.

Please replace the paragraph beginning on page 5, line 11, with the following amended paragraph:

The various embodiments of the present invention utilize a thermally stable polymer, copolymer, or polymer blend with loft retention as the flocking fiber. Sublimation printing typically heats and applies pressure to the flocked article to permit dye to be transferred and heat set via the vapor phase from a substrate to the fiber. Many polyester fibers, such as polyethylene terephthalate, polyamide fibers such as nylon, and cellulose fibers such as rayon soften at such temperatures/pressures and/or have poor loft retention, because of the temperature and pressure required for sublimation dye to transfer and heat set, thereby causing an unattractive article and unpleasant surface to the touch.

Please replace the paragraph beginning on page 6, line 10, with the following amended paragraph:

In one embodiment, the flock comprises a polyester having the repeating unit formula set forth in Figure 15. With reference to that figure, "R" represents hydrogen or independently a substituted or unsubstituted alkyl or aryl group and "S" is an aromatic or nonaromatic cyclic residue which can include one or more heteroatoms. In a particularly preferred embodiment, the flock comprises the polyester poly(cyclohexylene-dimethylene terephthalate) ("PCT"), with poly(1,4-cyclohexylene-dimethylene terephthalate) being preferred and PCT polyester, such as Thermx™ or Thermx EG™, from Eastman Chemical Company being even more preferred.

Please replace the paragraph beginning on page 7, line 20, with the following amended paragraph:

Processes for manufacturing PCT are disclosed in U.S. Patent 5,654,395; 5,194,523; 5,106,944; and 5,021,289, each of which is incorporated herein by this reference. Typically, PCT is formed by polymerizing a suitable ester, such as dimethyl terephthalate, with a suitable alcohol, such as 1,4 cyclohexane dimethanol, to a desired degree of polymerization under conditions and using catalysts known to those of ordinary skill in the art. After polymerization, the polymerized material is extruded in the form of a ribbon, and the ribbon hardened and cut into chips. The chips are dried and then put into hopper reservoirs for melting. The chips are melt spun into fibers, ~~or heated, extruded~~ by extruding through spinnerets at an extrusion temperature, cooled upon contact with the air, and wound around cylinders. The fibers are hot stretched at a drawing temperature until they are about five times their original length to decrease their width. The drawing results in optimal orientation of the molecules inside the fiber and results in a desired strength. The fibers can be annealed at an annealing or heat set temperature. The polymer may be mixed with suitable additives, such as blend compatible polymers, plasticizers, delusterants, dye stuffs, and the like.

Please replace the paragraph beginning on page 8, line 12, with the following amended paragraph:

To provide thermal stability, the polymer should be highly crystallized. Typically, the polymer in the fiber is at least about 20%, more typically at least about 30%, and even more typically from about 30% to about 70% crystallized. To make this possible, preferably at least one of the extrusion temperature, drawing temperature, and heat set temperature is/are at least as high or higher than the maximum temperature experienced by the fiber in later processing, such as sublimation printing and molding. More preferably, the temperature is ~~[[is]]~~ at least about 180°C, more preferably of at least about 190°C, even more preferably of at least about 200°C, and even more preferably of at least about 205°C. This temperature can be important to providing PCT with suitable properties for sublimation printing to “lock in” the resiliency. As will be appreciated, additives can be added to the PCT, as in the case of ThermxA or PCTA™ (which is isophthalic acid-modified PCT), to ~~reduce the melting temperature~~provide the desired degree of crystallinity.

Please replace the paragraph beginning on page 16, line 9, with the following amended paragraph:

The exposed, printed ends 512 of the flocked surface are next contacted with a first permanent adhesive 524 in step 528. The permanent adhesive is preferably an activatable ~~hot-melt~~ adhesive such as a thermoset or thermoplastic adhesive.

Please replace the paragraph beginning on page 16, line 14, with the following amended paragraph:

The barrier film 536 can perform a number of differing purposes. For example, the barrier film can be selected to provide a desired coloration to the transfer, *e.g.*, opacity, when viewed by a customer. The barrier film 536 could also be used to provide a desired color in areas where flock is intentionally omitted. This can produce a 3-D appearance to the viewer. Examples of film compositions for this objective include decorative media such as a textile, glitter, reflective glass,

beads and etc. The film 536 can be selected to provide desired physical properties to the transfer. For example, the film 536 can have high tensile and compressive strengths and a low modulus of elasticity to provide ~~rigidity~~elasticity or a high modulus of elasticity to provide ~~elasticity~~rigidity. This type of barrier film is discussed in U.S. Provisional Application Serial Nos. 60/403,992, filed and 60/405,473. Examples of film compositions for this objective include rubber and polyurethane. The film 536 can act as a barrier film to migration of the second permanent adhesive 540 into the flock 516.

Please replace the paragraph beginning on page 19, line 17, with the following amended paragraph:

Preferred resins in suitable resin dispersions include vinyls, such as plastisol (which comprises a polyvinyl chloride resin), urethanes, nylons, acrylics, acetates, and/or olefins. "Vinyls" refer to a compound including the vinyl grouping (~~$\text{CH}_2\text{---CH--}$~~) ($\text{CH}_2=\text{CH}_2\text{--}$) or a derivative thereof; "urethanes" to a compound including the grouping $\text{CO}(\text{NH}_2)\text{OC}_2\text{H}_5$ or a derivative thereof; nylons to a compound having the grouping -CONH or a derivative thereof; acrylics to a compound including the acrylonitrile grouping or a derivative thereof; acetates to an ester of acetic acid where the substitution is by a radical; olefins to a class of unsaturated aliphatic hydrocarbons having one or more double bonds; amides to a class of compounds comprising an acyl group (-CONH_2) typically attached to an organic group "R", where R can include hydrogen, an alkyl group, and an aryl group. More preferably, at least most of the resin is a vinyl polymer or oligomer, a urethane polymer or oligomer, an acetate polymer or oligomer, an amide polymer or oligomer, and mixtures thereof. Even more preferably, the resin is a poly (vinyl chloride), a polyurethane, a poly (ethylene vinyl acetate), a polyamide, and mixtures thereof. As noted, the resins in the resin dispersion typically include polymers and/or oligomers of the foregoing compounds. Preferably, the resin dispersion comprises at least about 25 wt.%, more preferably at least about 26 wt. %, and even more preferably from about 25 to about 35 wt.% of the resin. The remainder of the resin dispersion is primarily composed of the plasticizer (which typically is from about 30 to about 40 wt.% of the resin

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dispersion). Typically, the resin dispersion includes no more than about 45 wt.% of the other additives noted above. A preferred resin dispersion is Rutland Screen Printing Plastisol™ manufactured by Rutland Plastic Technologies, Inc.